Social Capital and Public Service Performance:

Does Managerial Strategy Matter?

Rhys Andrews
Cardiff University (UK)
AndrewsR4@cardiff.ac.uk

Gene A. Brewer
The University of Georgia and Utrecht University
cmsbrew@uga.edu

Public Performance & Management Review, 38, 2, 187-213.

Social Capital and Public Service Performance:

Does Managerial Strategy Matter?

The social capital of the communities served by public service organizations is arguably a key determinant of their success. The performance of those organizations may also be shaped by the managerial strategies adopted by organizational leaders. In this study, we explore whether an innovative, outward-looking strategy can enhance the social capital—performance relationship, or whether an inward-looking and more focused managerial strategy can better realize the potential benefits of social capital for organizational performance in the public sector. These issues are addressed using primary and secondary data from a large sample of Texas school districts. Our statistical analysis confirms that social capital is positively related to performance. However, the benefits of alternative managerial strategies for the social capital—performance relationship appear to be contingent upon the organizational goal being pursued. Theoretical and practical implications are discussed.

KEYWORDS: performance; social capital; managerial strategy; education, school districts

Introduction

The concept of social capital is increasingly deployed in a host of important areas of public administration research, especially education policy and research (see Dika & Singh, 2002). Within any given geographical area, different aspects of social capital, such as community organizational life, political engagement, and levels of interpersonal trust constitute a stock of material, cultural and human resources that can potentially be mobilized by the actors and agencies responsible for providing public services (Boix & Posner, 1998; Halpern, 2004). In particular, researchers are increasingly paying attention to the links between social capital and educational performance (e.g. Coleman, 1988; Sun, 1999; Marshall, 2006). However, to date, few have examined this relationship at the school district level despite the explosion of interest in the performance of school districts (O'Toole & Meier, 2011). Fewer still examine the managerial strategies most likely to reap the potential benefits of social capital, even though research indicates that strategic management is a key influence on organizational outcomes in the public sector (Andrews, Boyne & Walker, 2006; Brewer & Walker 2009; Meier, O'Toole, Boyne, Walker, & Andrews, 2010; Ryu & Lee, 2013). Thus, many important empirical questions remain under-explored. Does community social capital influence school district performance? Is an innovative outward-looking or a defensive inward-looking strategy best for performance? Which of these strategies has the greatest influence on the social capital—performance relationship?

This is a timely and pertinent subject for investigation. Enhancing citizens' potential for co-producing public services has become an issue of critical importance as government seeks to promote cooperative service delivery to meet current needs and demands (Bovaird, 2007; Rosenbloom & Gong, 2013; Vigoda, 2002; Yang & Pandey, 2011). In particular, a commitment to increasing citizen participation in the educational system has been at the heart of numerous efforts to raise the academic standards of schools (see, for example, Bryk &

Schneider, 2002; Kahne, O'Brien, Brown, & Quinn, 2001). Importantly, attempts to co-produce education may be more likely to succeed when organizational leaders adopt managerial strategies that can harness the stock of social resources which can be utilized to improve educational outcomes (Spillane & Thompson, 1997). Drawing upon a refined version of Miles and Snow's (1978) classic strategic management typology, we postulate that an outward-looking prospecting strategy which looks for new and innovative ways to deliver services is more likely to tap the social capital within the community than a defensive and more inward-looking strategy that focuses on improving the efficiency of existing operations. Certainly an organization that merely reacts to its environment would seem least likely to tap into social capital reserves.

To furnish answers to these questions, we examine the relationship between social capital, managerial strategy and the performance of a large sample of Texas school districts. Education is one service that has been repeatedly identified as a good candidate for co-production, as schools have tried to encourage parental involvement through the years. In other words, this should be a fertile proving ground for testing the social capital–performance hypothesis and exploring the boundary conditions of this relationship. The article begins by exploring the relationship between social capital and public service performance; we then formulate hypotheses on the potential separate and combined effects of social capital and managerial strategy on performance. Thereafter, measures of the key variables – social capital, managerial strategy and educational performance – and a set of appropriate organizational and environmental control variables are identified and described, and the statistical results of these models are presented. The article concludes by discussing the implications of the findings.

Social Capital and Public Service Performance

Social capital has been conceptualized and operationalized in myriad alternative ways, though typically it pertains to the structure and quality of social networks (see Portes, 1998). For this study, we follow previous research on social capital in public organizations and focus on structures (networks) and attitudes (norms) that are more than the sum of their individual-level parts (Pearce & Smith, 2003; Brewer, 2003). These attributes are, in effect, properties of social groupings (Newton, 2001). The social group that we focus on is the community-at-large within the areas served by school districts. Although much work on social capital has focused on the individual-level (e.g. Coleman, 1988; Burt, 1997), or on relevant meso-level institutions such as the school (Lee & Croninger, 2001; Leana & Pils, 2006), we view social capital as an attribute of the local community in a manner that parallels the work of Robert Putnam (for a similar approach see Warren et al., 2011).[1]

According to Putnam (2000), social capital comprises "connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them" (Putnam, 2000, p.19). The connections between residents living in a community thus constitute a large stock of human resources that can potentially be mobilized for public purposes. One such purpose is the improvement of public schools within an area. By drawing on the formal and informal mobilizing social structures present in the community that they serve, school districts can potentially tap vital reserves of energy, time and money that can be deployed to improve policy formulation and implementation (Montgomery, 2000; Warren, 2005). These collective resources effectively constitute the "co-productive capacity" of a community, which could be drawn upon by educational institutions seeking to develop and introduce new policy initiatives (Spillane & Thompson, 1997).

[1] We also recognize that social capital can be studied simultaneously across multiple levels (for example see Son & Lin, 2008), but this study focuses solely on the community level.

Some critics have argued that an emphasis on social capital in policy debates distracts attention from other important explanatory factors, such as social class and material disadvantage, which may be responsible for public service outcomes (Fine, 2010; Navarro, 2002). However, others have argued that a dearth of social capital is the underlying root cause of such disadvantages (for example see Putnam, 2002). While it is a contested and sometimes controversial concept, social capital remains a useful heuristic for exploring the salience of social relationships in public policy, especially in an era in which the importance of co-production is emphasised (Bovaird, 2007; Jacobsen, 2012; Vigoda, 2002). Indeed, some authors have argued that increasing community social capital is the most effective and lasting cure for under-performing institutions (for example see Shirley, 1997; Warren et al., 2011).

Social capital is often conceptualized in the empirical literature as a latent construct that cannot be directly observed, but rather is composed of separate though inter-related dimensions that are susceptible to observation. Taken together these dimensions constitute a theoretically coherent representation of an underlying concept. We frame our study around those distinctive dimensions of social capital that have been the principal focal point of the work of Robert Putnam.

On the basis of extensive longitudinal research, Putnam identified three key dimensions of social capital that have played a central role in maintaining the quality of government performance in both northern Italian regions (1993) and the US states (2000): community organizational life, engagement with public affairs, and interpersonal trust. These key dimensions of social capital undergird the structural and attitudinal resources available within communities for public organizations to harness in the pursuit of service improvement. The effects may be positive or negative, depending upon the context in which group resources are developed and whether their deployment contributes to or detracts from the wider public good (Lin, 2001; Portes, 1998).

Through participation in community organizations, such as sports clubs, arts societies and social support groups, citizens may learn to overcome collective action problems associated with influencing, monitoring and controlling public service organizations (Claibourn & Martin, 2007; Grosso & Van Ryzin, 2011). Community organizations can enable citizens to better articulate their demands (Leroux, 2007) and make it easier for public organizations to understand and meet these needs (Dryzek, 1995; Pierce, Lovrich & Moon, 2002). Within the educational domain, such organizations can also play a vital role in the actual delivery of services, thereby potentially lowering the costs of those services and increasing the capacity for delivery (Warren, 2005). Despite these apparent positive externalities, vibrant community organizational life may pose problems for public organizations, proliferating the influence of private interests and encouraging organized dissent against policy initiatives that are in the broader public interest. For example, where competition for political influence between social groups is more acute, it may become more difficult to secure agreement on common goals (Meyer, 2004). Thus, while one might anticipate that community organizational life offers the potential for fruitful co-productive activity, it might also be the source of serious community tensions and conflicts, which add to the costs of service delivery.

Public organizations require the support of multiple external stakeholders, especially local citizens and service users (Hirschman, 1970). The potential for public organizations to respond effectively to policy problems may be enhanced when citizens are afforded the opportunity of authentic collaboration – to support and be directly involved in decision-making (Lee, 2014; Vigoda, 2002). In particular, the expertise, commitment and local knowledge of engaged parents can potentially enhance the educational experience of students and improve the functionality of schools (Comer & Haynes, 1991). However, the realization of those positive benefits may depend upon the motivation of the parents. Cucchiara and

Horvat (2009) show how middle-class parental involvement can sometimes have an 'individualistic' rather than a 'collective' orientation, focused on the development and success of their own children rather than that of the whole student body. In fact, parental involvement is sometimes the preserve of local elites, with all the potential injustices this can entail for less-advantaged children (Wells & Serna, 1996; Stanton-Salazar, 1997). These complications point to the importance of context-sensitive public management, to ensure that parental involvement bolsters the legitimacy of organizations, as well as improving standards across the board (Adams, Forsyth, & Mitchell, 2009).

In theory, social trust contributes to community connectedness and relieves public agencies of the "burden of enforcing compliance" with legislation, increasing their capacity to focus on improving services (Boix & Posner, 1998). In areas characterized by strong trust, educational institutions may therefore have to devote less time to "selling" their policies and decisions, and consequently require fewer resources to mediate local demands and maintain good community relations. The result is greater legitimacy and autonomy for school districts, which can facilitate their performance (Carpenter, 2001). If such solidarity is missing, however, educational institutions may have to overcome considerable resistance to their efforts to distribute services equitably to different social groups (Ream & Palardy, 2008). Alternatively, a high degree of solidarity may be an indicator of insularity and closed-mindedness (Suttles, 1972). In such circumstances, a community characterised by high levels of trust may be extremely resistant or even hostile to the work of public organizations. Efforts to build trust in those organizations may therefore play a key role in determining the prospects of co-production success (Bryk & Schneider, 2002).

Although scant research considers the relationship between social capital and educational performance at the school district level (for a notable exception see Webber, 2010), a recent review of evidence from across the public sector suggests a positive

connection between the two variables (Andrews, 2012). In particular, prior studies in the education field relate each key dimension of social capital to improved school performance. Sun (1999), for example, finds that parental participation in community organizations is linked to better test performance in US high schools, as do Porfeli et al. (2009) for schools within a single urban district in the US. Marshall (2006) links parental involvement in Chicago schools with reading and math scores, and Kahne and Bailey's (1999) qualitative study of graduation rates in two Chicago high schools illustrates that social trust – a key ingredient of social capital – plays a key role in building the confidence of disadvantaged students. Taken together, the potential positive effects of each of these dimensions on the prospects of effective co-production lead us to anticipate that social capital will be positively related to school district performance, especially as these organizations are highly reliant on local communities and citizens for their funding and policy direction. Therefore our first hypothesis is:

H1: Social capital will be positively related to public service performance

Social Capital, Managerial Strategy and Performance

To harness the potential benefits of community social capital for performance, public organizations may have to innovate and develop policies which enable them to maximize the opportunities for effective co-production. Aside from specific initiatives designed to increase parental involvement in decision-making and delivery of educational services, such as neighborhood meetings, volunteer programs, and parent-teacher associations (Epstein et al., 2009), the broad strategic approach adopted by organizational leaders is likely to influence the prospects of co-production success. At the same time, the interactive effects of social capital and strategy on performance are of considerable importance given that alternative

strategic choices are known to have divergent implications for performance (Meier et al., 2008; 2010). In terms of the links between these two potentially important determinants of public service performance, it seems likely *prima facie* that an outward looking and forward leaning school district will be more attuned to citizen demands and needs, while an inward looking one may be less alert to the opportunities for garnering the expertise and know-how of parents and others citizens.

Several approaches to conceptualizing the strategic behavior of public agencies have emerged in recent years (see Bryson, Berry, & Yang, 2010). One of the most influential frameworks is the strategy typology developed by Miles and Snow (1978), which consolidated prior strategic management research by developing a typology of strategy content consisting of four "ideal types." *Prospectors* are organizations whose strategic outlook is focused on innovation and the exploration of new markets and services. They are often pioneers and "first movers" in their industry. Within the education system, prospecting is likely to involve an independent quest to explore and "try out" new approaches to teaching and learning. *Defenders* are organizations that take a conservative view of new product development. They typically compete on price and quality rather than searching for new products or markets, and stick to their core business niche with a focus on improving efficiency. Educational institutions adopting a defending strategy will likely focus on refining established approaches to teaching and learning. *Analyzers* represent an intermediate category, sharing elements of both prospector and defender. *Reactors* are organizations in which top managers frequently perceive change and uncertainty in their organizational environments but typically lack an actual strategy. A reactor waits for cues or instructions from powerful stakeholders, responding primarily to threats that may affect its survival. In educational institutions, reacting will entail doing whatever supervisory agencies advise is the best way forward in schooling.

According to Conant et al. (1990) and DeSarbo et al (2005) organizational leaders may employ different types of strategies for different purposes; for example, vigorously defending the core niche of the organization so as to ensure its survival, while actively prospecting for new products or services in an effort to expand its domain. Strategy variables should thus be regarded as continuous rather than categorical. This implies that Miles and Snow's "analyzer" category is redundant because all organizations are likely to prospect and defend to some extent.

As noted above, these strategies evoke many parallels in the case of educational institutions. For example, charter schools, magnet schools, and other innovative forms embrace the prospector strategy, seeking out new ways to meet students' needs as well as new sources of revenue. Public schools experiencing resource scarcity and flagging performance indicators often assume a defensive posture determined to improve test scores in a bid to demonstrate effectiveness. As these conditions worsen, these schools can become reactors, merely hanging on and trying to survive by doing whatever regulators suggest is necessary, as in the case of some failing rural and inner-city schools. Of course it should be emphasized that managerial strategies are not institutionally fixed: school superintendents and other educational leaders can alter the strategy mix – and often to good effect (for example see Wilson, 1989, who chronicled the turnaround of Carver High School in Atlanta, Georgia).

Managerial strategies are likely to have an important independent effect on public service performance, although Meier et al.'s (2010) study of Texas school districts suggests that for superintendents seeking to achieve high test scores, defending may work best; but that for those attempting to improve college readiness, an innovative prospecting strategy may work better. That said, it is highly likely that the full benefits of strategy are only likely to be realized when the strategy adopted by organizational leaders is in alignment with the

type of environment inhabited by an organization (Andrews, 2008; Lee & Kim, 2012; Miles & Snow, 1978). Thus, to develop expectations about the likely moderating effects of strategy on the social capital—performance relationship, it is important to consider which strategies may fit best with an environment characterized by high or low community social capital.

At face value, one might expect that an exploratory prospecting strategy would offer the best hope of connecting educational institutions with citizens and service users in ways that might enhance performance. By committing to a search for new approaches to service delivery, prospecting organizations are potentially more likely to seek out the views of citizens and to involve them in the quest for school improvement. At the same time, high social capital environments may be more hospitable to organizations pursuing a prospecting strategy. For instance, it is recognised that social trust can lower transaction costs within civil society, thus creating stronger incentives for business and non-profit innovation and better cross-sectoral connections (Fukuyama, 1995; Purdue, 2001). Thus, a positive attitude towards innovation on the part of educational institutions and the people they serve will result in better educational performance.

By contrast, a defensive focus on enhancing the efficiency of existing operations may impede responsiveness to citizens and service users. In concentrating on doing what they know how to do best, defending organizations may feel that they have little need for citizen input into decisions and lack the incentive to develop the expertise to do so effectively. In these cases organizational leaders may even try to buffer their school districts from environmental shocks and dampen external demands in order to protect the core (O'Toole & Meier, 2011). In a related vein, when an area has a low level of social capital, a defending strategy may be necessary to compensate for the community's lack of commitment to public goods and the public interest. When participation in community organizations, engagement with public affairs, and social trust is low, it is conceivable that educational institutions might

best focus on delivering core services efficiently and to the best of their ability. Inevitably, a reacting strategy would probably undermine the social capital—performance relationship. This is because an inconsistent approach to dealing with signals from alternative external stakeholders would seem to rule out genuinely authentic collaboration with citizens.

Despite the plausibility of these arguments, it is still conceivable that a defending strategy might have certain advantages over a prospecting one which would realise the benefit from high levels of social capital. For example, a focus on maintaining service quality and reliability might give citizens greater confidence in the ability of an organization to respond effectively to their needs (Mizrahi, Vigoda-Gadot & Cohen, 2010). Similarly, organizations may lose the trust of citizens if, in their desire to pursue innovation at any cost, a prospecting strategy results in an ill-disciplined hyperactivity that fails to deliver tangible results. Reckless entrepreneurship and excessive risk-taking can lower citizens' confidence in government and undermine performance (Perlmutter & Cnaan, 1995). Alternatively, it is conceivable that both strategies when properly employed will have a positive moderating effect on the social capital—performance relationship, and that it is the pervasive absence of a coherent approach to service delivery that results in a performance penalty. That is, reacting organizations are simply doomed to fail in harnessing social resources, whereas those with clear goals and proven methods inspire confidence and therefore are more likely to succeed in harnessing social capital. Thus, our second and third hypotheses are, as follows:

H2: A prospecting and defending strategy will strengthen the social capital—performance relationship.

H3: A reacting strategy will weaken the social capital—performance relationship

Methodology

To evaluate whether managerial strategy influences the social capital—performance relationship, we analyze primary and secondary data from nearly 500 school districts in Texas in 2009. These school districts have their own governing bodies (locally elected school boards), taxing powers, and a relatively flat organizational structure with a clear hierarchy. This dataset includes demographic and performance data obtained from the Texas Education Agency (TEA), which collects and compiles this information for every school district in Texas every year. It also incorporates Texas school district superintendent survey responses about management practices and various organizational challenges, which are described in more detail below.

DEPENDENT VARIABLES

There are many ways to evaluate school district performance. In Texas, the most important and salient performance measure is student performance on the state standardized test which, during the study period, was known as the Texas Assessment of Knowledge and Skills (TAKS). The federal 'No Child Left Behind' (NCLB) policy is based on the Texas experience with this test (Manna, 2011). It is a basic skills test designed to measure student success and teacher effectiveness. All students in grades 3-8 and 10 must take the test. Students in tenth grade must pass the test in order to graduate from high school. The summary test scores are used by the TEA to rank school districts and the results are widely reported in the news media; the state standardized test is the most visible indicator of school performance and the quality of schools. As provided for in the NCLB, both schools and teachers can be rewarded or punished based on the results. Thus, scoring well on the TAKS is the putative primary mission of each school district, at least with respect to the NCLB policy

mandate. The performance measure itself is expressed as the percentage of students in a district who pass all (reading, writing, and math) sections of the test.

In addition to the TAKS measure, we examine the effects of social capital and managerial strategy on two indicators of performance that capture how well school districts are preparing students for college. Firstly, we analyse the percentage of students who take college admission tests (SATs or the ACT equivalent). Secondly, we supplement our analysis of college test participation with an evaluation of how well students perform in the tests, specifically by analysing variations in the percentage of students who score above 1100 on the SAT college admission test (or its ACT equivalent). In doing so, we gain insight into the performance of school districts on measures that matter not only for parents and students, but also for policy-makers. College admission test entry and readiness indicators are treated by the Texas Education Agency (2010a) as the Gold Performance Acknowledgement (GPA) standard of school district performance. For districts to meet the GPA standard in 2009 at least 70 per cent of graduates should have taken college admission tests and at least 40 per cent of examinees should have met the SAT criterion score of 1110 (Texas Education Agency, 2010b).

These archival measures of public service performance are not contaminated by the effects of social capital to the same extent as stakeholders' subjective assessments of performance may be. As a result, they, at least, partially correct for the endogeneity often associated with the social capital—performance relationship (see, for example, Rothstein & Stolle, 2008). Nevertheless, even though we avoid the problem of common source bias connected with subjective performance measures (Meier & O'Toole, 2013) due to the cross-sectional nature of the data we are unable to overcome the potential for our results to be the product of two-way causality.

INDEPENDENT VARIABLES

The measures of *social capital* were gathered from a survey of all school district superintendents in Texas administered during the 2008-2009 school year.[2] In this survey 1,237 superintendents were asked a variety of questions about community social capital and other organizational and management issues; 527 responded for a response rate of 42.6 percent. To gauge the strength of community organizational life within the areas served by schools districts, superintendents were asked to indicate whether they agreed that citizens in their district "participate in a wide range of community organizations" on a scale of 1 (strongly disagree) to 4 (strongly agree). To establish the extent of engagement in school district affairs amongst parents, superintendents were asked to rate the quality of parental involvement in the school district from 1 (inadequate) to 4 (excellent). Finally, to evaluate the degree of social trust present in the community, superintendents were asked to indicate whether "citizens exhibit a very high level of social trust towards others" on a scale of 1 (strongly disagree) to 4 (strongly agree). These measures are adapted from single item questions used in prior research (e.g. Brown et al., 1996; Bifulco & Ladd, 2005). To construct an index of social capital that captures the idea that it is a latent construct, we take the average of the scores on the three separate items. This index exhibits decent scale reliability (Cronbach's alpha of 0.7). Descriptive statistics for the three items are shown in Table 1.

To gauge *managerial strategy* we draw upon survey items developed from Snow and Hambrick's (1980) work on the Miles and Snow (1978) typology. The prospecting strategy was operationalized through a measure tapping the extent to which innovation and market exploration are an important goal for a school district. Superintendents were asked to indicate whether the district "searches for new opportunities to provide services" on a scale of 1 (strongly disagree) to 4 (strongly agree). To explore the extent to which organizations

[2] We thank Kenneth J. Meier and Laurence J. O'Toole, Jr. for sharing this data.

pursued a strategy of defending, informants were asked to assess on a scale of 1 (strongly disagree) to 4 (strongly agree) whether the district tended to "focus on what we already know how to do". Finally, reactors are expected to await guidance from key stakeholders on how to respond to environmental change. The TEA is considered to be the primary external stakeholder in the K-12 Texas school system. Therefore, superintendents were asked to indicate the extent to which "what we do is influenced by the TEA" on a scale of 1 (strongly disagree) to 4 (strongly agree).

There is growing evidence on the validity and reliability of single-item measures with strong face validity (see Wanous & Hudy, 2001), particularly when respondents are knowledgeable about the matters in question and can render objective assessments of them. In fact, well-crafted single-item measures may elicit more complete and valid information about the underlying concept than multiple-item scales, plus they are easier to administer and interpret. Moreover, studies have demonstrated that single-item measures predict equally as well as multiple-item measures (Bergkvist & Rossiter, 2007).

To isolate the effects attributable to managerial strategy, we include a series of additional measures of other management characteristics of school districts in our statistical models. First, we add a measure of *managerial networking*, which taps the interaction of superintendents with key actors in the school district's external environment: other school superintendents, state legislators, the TEA, and local business leaders. To evaluate the intensity of superintendents' networking activity with these key actors, respondents were asked to gauge the extent of their interaction with each group on a six-point scale, where 1 = never, 2 = yearly, 3 = monthly, 4 = weekly, 5 = more than once a week, and 6 = daily. To construct a single networking variable suitable for multivariate analysis, the networking items were factor analyzed and a single factor was derived onto which each item loaded positively (Eigenvalue of 1.76). The factor scores from this analysis are thus taken as indicators of the

level of managerial networking, which has been shown to positively affect school district performance in previous research (Meier et al. 2010; O'Toole & Meier, 2011).

Second, we include a measure of *managing upward* in the statistical models. Prior research has suggested that the interactions between superintendents and the school board are substantively different from those with other key actors (Carver, 2002). Since networking with the school board may be characterised as a principal-agent relationship between a political sovereign and the school superintendent, these interactions embody the notion of managing upward (Moore, 1995). Like the other managerial networking measures, the frequency of superintendents' interactions with the school board are rated on a six-point scale ranging from never (1) to daily (6).

Third, we add measures of *managerial stability* and *workforce stability*. The first measure is gauged by asking superintendents the number of years they have been employed in the school district in any capacity. The second measure is calculated as the percentage of teachers employed by the school district in the preceding year who continue to be employed by the organization. Both measures have been shown to positively influence performance in previous research (Meier et al. 2010).

CONTROL VARIABLES

Aside from the influence of social capital, strategy and other management variables, school district performance is likely to be a function of the organizational environment and program resources. Drawing on prior studies of school district performance, we add three measures of the organizational environment and five measures of resources to the statistical models. In terms of the environment, we include measures of the percentage of students who are black, Latino, and poor (based on eligibility for free or reduced-price school lunches). School districts with a more diverse and less-advantaged student body must work harder to attain the

same levels of performance as their more homogenous and affluent counterparts (Jencks & Phillips, 1998). Thus, we expect each of our environmental measures to be negatively related to performance.

Importantly, by including the % low income students, we effectively control for the effects of parental income on social capital; in fact, this is the measure the US Census Bureau uses to measure poverty in school districts. To explore whether we are able to identify a meaningful social capital effect above and beyond the influence of socio-economic circumstances, we analyzed bivariate correlations for the environmental measures and the social capital index. This analysis revealed weak negative correlations between the percentage of black and Hispanic students and social capital (-.11 and -.18), but a much stronger negative correlation between low income students and social capital (-.44). Although data on other relevant socioeconomic circumstances, such as parental education level, is not presently available for school districts, we feel some confidence that the inclusion of the low income student measure means that the identification of any statistical significant relationships between social capital and performance will not be spurious.

In terms of resources, we include measures of average teacher experience, average teacher salary, the percentage of new teachers in a district, average class size, and per-student instructional spending. Teacher experience and salary should display a positive relationship with performance, while new teachers and class size should exhibit a negative relationship.[3] The instructional spending measure might run in either direction, as it could enhance or detract from "hands-on teaching". Each of these variables is commonly used in education production models. Descriptive statistics for these variables are presented in Table 1.

[3] We tested for the possibility that there is non-linearity in the teacher experience-performance relationship, finding an inverted u-shaped relationship for the measure of college readiness, but no relationship for the other two measures. As a result, we include a squared version of the teacher experience variable in our models of college readiness but not in the models of TAKS and college admission tests.

[Position of table 1]

Statistical Results

Results for statistical tests of the relationships between social capital, strategy, and performance are shown in Tables 2 and 3. Twelve ordinary least squares (OLS) regression models are presented in Table 2. Model 1 regresses the TAKS score onto the control variables, before the social capital index is entered into the equation, followed by the strategy variables, and finally the social capital—strategy interactions. The same pattern is then repeated for the college test participation and college readiness scores. In Table 3, results of the tests of the relationship between performance and each sub-dimension of social capital (i.e. participation in community organizations, parental involvement and social trust) are presented. The findings for the models without interaction terms are not distorted by multicollinearity as the average Variance Inflation Factor score for the independent variables in the models is about 2.4, with no single variable approaching the upper limit of 10. Robust estimation of the standard errors corrects for non-constant error variance.[4]

[Position of table 2]

The management and control variables generally produce results that conform to our expectations so they will not be discussed at length. Turning to the results for the key variables of interest, it is clear that social capital makes a positive contribution to performance, corroborating our first hypothesis and evidence from several previous studies on the potential benefits of such social capital. This confirms that successful efforts to

[4] We tested for the potential for left and right censoring to bias our results for the college admissions test and readiness measures by calculating Tobit regression estimates for our models. This robustness analysis revealed near-identical results to our OLS estimates (available on request). As a result, we are confident our findings are not biased by the floor and ceiling for those two dependent variables.

harness the co-productive capacity of local communities can benefit educational institutions. Substantively speaking, the results suggest that a one standard deviation increase in the level of social capital is associated with a 1.6% improvement on the TAKS score, a 1.7% improvement in college test participation and a 1.5% improvement on the college readiness indicator. Managerial strategy also affects performance. As found in previous research on Texas school district performance (Meier et al. 2008; 2010), prospecting is positively related to college readiness and defending (albeit weakly, on this occasion) to TAKS scores. As we anticipated, reacting does not have a positive or negative impact on either performance indicator.

The findings shown in Table 2 highlight that social capital is likely to play an important role in educational performance, but that managerial strategy may also make a difference when matched to appropriate goals. The contingent nature of strategy's beneficial effects raises the intriguing possibility that one strategy or another may be more likely to enhance the positive effects of social capital for certain organizational goals. To explore this possibility further, interaction terms are entered in the statistical models.

The interactions between social capital and managerial strategy shown in Table 2 indicate that there are complex causal mechanisms at work, and offer mixed support for our second and third hypotheses. First, it appears that the choice of strategy pursued by a school district adds little to the potentially positive benefits of social capital for the primary mission of the organization – at least in the case of the Texas K-12 school system (i.e. producing high test scores as mandated by the NCLB policy). Second, the results for college test participation indicate that a reacting strategy disrupts the positive connection between social capital and performance. Third, the results for college readiness, which the Texas Education Agency sees as the gold standard of school district performance, indicate that the selection of a coherent strategic stance is likely to enable school districts to harness social capital for college

readiness. The combinations of prospecting and social capital, and defending and social capital, both seem to make a positive contribution to performance on this indicator in direct contrast to the model predicting test scores. However, a reacting strategy again seems to damage the social capital—performance relationship. It is possible that a focus on responding to the demands of the government stakeholders, such as the TEA, means that districts become much less attuned to the needs of the communities that serve. It may also be the case that this leads communities concerned about college readiness to become disengaged from the education production process, and perhaps even hostile to a district's predilection for following the TEA's guidelines.

To better illustrate the nature of the statistically significant interactions, we plotted the equation at high (i.e., score of 4) and low (i.e., score of 1) values for the relevant managerial strategies. As depicted in Figure 1, at high levels of prospecting, as social capital increases, so too does college readiness, whereas at low levels of prospecting as social capital increases college readiness declines. By contrast, Figures 3 and 4 indicate that high levels of reacting weaken the social capital-performance relationship, and that low levels of reacting actually strengthen that relationship. These results lend strong empirical support to H2 and H3 for college readiness in particular. Detailed qualitative research exploring the interaction between parents, community groups and school districts would reveal much about the ways in which strong communities seem to respond so favorably to positive strategic intent towards high-end performance, but with antipathy towards organizational inertia.

[Position of figures 1-4]

To further elaborate on our main findings shown in Table 2, we next model the relationship with performance for each of the different sub-dimensions incorporated in our

social capital construct. Although taken together the separate aspects of social capital may constitute a theoretically coherent representation of an underlying concept, each aspect may itself have an independent life of its own.[5] To provide additional insights on what drives public service performance, we therefore estimate models including the measures for each sub-dimension of social capital, namely participation in community organizations, parental involvement and social trust, as rated by the district superintendents.

In re-estimating our models for the different aspects of social capital we anticipate that the effects we observe will be broadly similar to those for the composite measures. However, we anticipate that parental involvement will be especially important for test scores, as the focus of parents who are engaged with the business of the district is likely to be largely orientated towards educational progress. By contrast, participation in community organizations is expected to be particularly important for the college-based performance measures, which rely on a greater degree of co-production from within society. Given its generic nature, social trust seems likely to bring benefits to all three performance indicators. Again, we expect that a prospecting strategy will be most likely to enhance the social capital—performance relationship, but that a reacting strategy will most likely weaken that relationship.

[Position of table 3]

Table 3 displays results from the estimations using the sub-dimensions of social capital. We can observe that parental involvement appears to be driving the social capital—performance relationship for TAKS scores, though it is important to note that the coefficient for social trust is positive and statistically significant in this model as well. Trust also has a positive and

[5] We are grateful to one of the reviewers for suggesting that we bore down to the sub-dimensional level.

statistically significant relationship with college test participation, but none of the other sub-dimensions make a difference towards this performance indicator. For the college readiness indicator, participation in community organizations is the sub-dimension that matters most, and, somewhat surprisingly, social trust appears to be detrimental to achieving Texas' Gold Performance Acknowledgement standard.

Turning to the interactions, we can see that a smaller proportion of these coefficients achieve statistical significance in Table 3 than those included within the models shown in Table 2; this points towards the value of treating social capital as a latent construct, since it seems to reduce the potential for measurement error to generate findings at odds with theory. In terms of statistically significant relationships, the findings here suggest that a defending strategy is likely to harm the positive relationship between parental involvement and TAKS scores, but that a defending or a reacting strategy are suited to communities with high levels of social trust. By contrast, prospecting appears to hold the key to realising any benefits from the parental involvement-college readiness relationship, even if it doesn't really matter that much for the other dependent variables. For the college-based measures, a reacting strategy is likely to be a poor choice, especially in areas with a high level of social trust.

Overall, then, our main hypotheses received a reasonable amount of support when tested using the social capital index. Our extended analysis breaking down the social capital construct into its constituent parts reveals some of the relationships between social capital and performance that one might anticipate. However, the findings for the interactions here are less compelling, and so further research using indices and indicators in other settings is required to derive firmer conclusions about the precise dynamics of the social capital—strategy—performance relationship.

Discussion

Our study provides evidence of the complex world in which public service organizations operate. The results suggest that social capital and managerial strategy can directly affect school district performance – and that the interaction between these two sets of variables may produce additional benefits for performance. Nevertheless, these benefits appear to be contingent upon the goal at hand. The performance of public organizations is not a simple, one-dimensional concept. Rather, it is multidimensional and consists of various goals, each of which matters a great deal to the organization's stakeholders, such as producing high test scores, sending more graduates to college, etc. Leaders must synchronize many moving parts of the organizational machinery, including social capital and strategy, to produce a desired performance outcome. Taken as a whole then, our results confirm arguments about the benefits of strategic alignment – at least for this set of organizations and on these performance measures. These findings have important implications.

For each of the elements of performance that we study, social capital makes a positive contribution. This contribution is strongest for test scores but it also holds for college test participation and college readiness. Superintendents must therefore recognize that community social capital is an important factor in achieving their goals and look for ways to harness it. For example, parental involvement can be facilitated by instilling a culture of openness and cooperation between parents and schools in their districts. Likewise, in districts with flagging test scores, more attention could be paid to building ties with community organizations and increasing levels of social trust.

This study has shown that managerial strategy also affects performance, but its impact is not always as consistent or strong as in business organizations. For example, prospecting is only positively related to college readiness and defending only marginally improves test scores. This confirms that public management is more of a collaborative and facilitative

process rather than one in which heroic leaders march their organizations toward some visionary future. In fact, several well-known characteristics of educational institutions support this interpretation: they are among the most democratic, decentralized, and professional institutions in society, and they have extensive networks of stakeholders. These factors may be interpreted as constraints placed on superintendents; however, when superintendents manage in collaborative and facilitative ways, such factors may enhance their effectiveness and improve school district performance.

As mentioned above, it appears that the choice of managerial strategy pursued by a school district adds little to the potentially positive benefits of social capital for test scores. These findings support our contention that school district superintendents should manage their affairs, both inside their districts and in the broader community, in an open, collaborative, and facilitating way. Nevertheless, our results also indicate that both a prospecting and a defending strategy can offer additional gains when trying to increase college readiness, so superintendents need to consider the level of social capital in their school districts when formulating plans for improving their performance on this measure. At the same time, the results caution against a reactive strategy, not so much because it is detrimental in itself in this setting, but because it undermines the connection between high social capital and education performance. All of this points toward the wisdom of a systems approach in which organizational leaders think of their institutions as pivotal organizations in the larger system.

Our findings underscore the need for further research. This study has begun to unravel one important subset of the management relationships which is critical for improving public services: the impact of social capital and managerial strategy on performance. As such it produces some valuable knowledge for scholars and practitioners, and it generates additional research questions that need to be answered.

Several limitations of our work provide markers for subsequent studies. First, more theoretical refinement is needed to help make further sense of our findings. It is not sufficient to excavate a few Gordian relationships and conclude that public administration is a complex and skilled task. Detailed field studies could provide more insight on how district superintendents manage relationships with community stakeholders while seeking to develop and implement appropriate managerial strategies. Second, several key concepts could be measured better. It might be useful to have objective measurement items that triangulate on the different dimensions of social capital, as well as other potentially relevant external variables, such as parental education levels. It would also be helpful to have measures incorporating the perspectives of parents, teachers, principals and other stakeholders, which would permit multi-level analysis of the importance of the role each group might play in cultivating social capital.

Finally, it would be beneficial to have longitudinal panel data on social capital, managerial strategy and school district performance to tease out changes that occur over time. This would enable researchers to address several thorny issues in the study of public service performance, including the potential for two-way causality in the social capital—performance relationship, the impact of strategic change on performance, and the potential for positive and negative social capital—performance feedback effects to shape strategic choices. In particular, it is quite conceivable that there is a virtuous circle between social capital, performance and a prospecting strategy, which it would be interesting to study in more detail.[6]

Managerial strategy plays an important role in producing performance outcomes independently and when working in concert with social capital. Unlike most contextual and environmental variables that affect public service performance, strategy is a *discretionary*

[6] We are grateful to the anonymous reviewers for these insights.

choice that administrators can make with relative ease. (Implementation is a bit more difficult but it may also occur, as the literature on strategy shows.) As such, while superintendents cannot readily change the demographic makeup of their communities and may be unable to improve their school district's revenue stream, they can choose different strategic stances.

In addition, social capital is an important part of the performance equation for school districts even though it lies in their external environment and is not, in theory, as malleable as managerial strategy. It should nonetheless be noted that districts are much more than consumers of social capital; they are also major producers. In fact, public schools have long been recognized as bulwarks of civil society: they create social capital by imparting norms of social trust, citizenship, and 'good government'; they are brick and mortar institutions that help motivate networks of social action in their communities; and they provide fertile settings and opportunities for citizens to practice discursive democracy and experience the process of self-government. Researchers should therefore continue to investigate the role of social capital in public education as a means for improving performance and as a vehicle for social progress.

References

Adams, C.M., Forsyth, P.B., & Mitchell, R.M. (2009). The formation of parent-school trust: A multi-level analysis. *Educational Administration Quarterly*, *45*, 4-33.

Andrews, R. (2008) Perceived environmental uncertainty in public organizations: An empirical exploration, *Public Performance & Management Review*, *32*(1), 21-46

Andrews, R. (2012). Social capital and public service performance: A review of the evidence. *Public Policy & Administration*, *27*(1), 49-67.

Andrews, R, Boyne, G.A., & Walker, R.M. (2006). Strategy Content and Organizational Performance: An Empirical Analysis. *Public Administration Review*, *66*(1), 52-63.

Bergkvist, L., & Rossiter, J.R. (2007). The predictive validity of multiple-item versus single-item measures of the same constructs. *Journal of Marketing Research*, *44*, 175-184.

Bifulco, R., & Ladd, H.F. (2005). Institutional change and coproduction of public services: The effect of charter schools on parental involvement. *Journal of Public Administration Research and Theory*, *16*, 553-576.

Boix, C., & Posner, D.N. (1998). Social capital: Explaining its origins and effects on government performance. *British Journal of Political Science*, *28*, 686-693.

Bovaird, T. (2007). Beyond engagement and participation: User and community coproduction of public services. *Public Administration Review*, *67*, 846-860.Brewer, G., & Walker, R. (2009). Can management strategy minimize the impact of red tape on organizational performance? *Administration & Society 41*, 423-448.

Brown, D.W., Carr, R.E., Perry, C.M. & McIntire, W.G. (1996). Principals' perceptions of community and staff involvement in shared decision-making. *Journal of Research in Rural Education*, *12*, 17-24.

Bryk, A.S., & Schneider, B. (2002). *Trust in schools: A core resource for improvement*. New York: Russell Sage Foundation.

Bryson, J.M., Berry, F.S., & Yang, K. (2010). The state of public strategic management research: A selective literature review and set of directions. *American Review of Public Administration*, *40*, 495-521.

Burt, R.S. (1997). The contingent value of social capital. *Administrative Science Quarterly*, *42*, 339-365.

Carpenter, D.P. (2001). *The forging of bureaucratic autonomy: Reputation, networks, and policy innovation in executive agencies, 1862-1928*. Princeton, NJ: Princeton University Press.

Carver, J. (2002). *John Carver on Board Leadership: Selected Writings from the Creator of the World's Most Provocative and Systemic Governance Model*. San Francisco, CA: Jossey-Bass.

Claibourn, M.P., & Martin, P.S. (2007). The third face of social capital: How membership in voluntary associations improves policy accountability. *Political Research Quarterly*, *60*, 192-201.

Coleman, J.S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94(Supplement), S95-120.

Comer, J.P., & Haynes, N.M. (1991). Parent involvement in schools: An ecological approach. *The Elementary School Journal*, *91*, 271-277.

Conant, J.S., Mokwa, M.P., & Varadarajan, P.R. (1990). Strategic types, distinctive marketing competencies and organizational performance: A multiple measures based study. *Strategic Management Journal, 11*, 365-383.

Cucchiara, M.B., & Horvat, E.M. (2009) Perils and promises: Middle-class parental involvement in urban schools. *American Educational Research Journal*, *46*, 974-1004.

DeSarbo, W.S., Di Benedetto, A.C., Song, M. & Sinha, I. (2005). Revisiting the Miles and Snow strategic framework: Uncovering interrelationships between strategic types, capabilities, environmental uncertainty, and firm performance. *Strategic Management Journal*, *26*, 47-74.

Dika, S.L., & Singh, K. (2002). Applications of social capital in educational literature: A critical synthesis. *Review of Educational Research*, *72*, 31-60.

Dryzek, J. (1995). *Discursive democracy: Politics, policy, and political science*. Cambridge University Press.

Epstein, J.L. et al. (2009). *School, family and community partnerships: Your handbook for action*, 3rd edition. New York: Sage.

Fine, B. (2010). *Theories of social capital: Researchers behaving badly*. London: Routledge.

Fukuyama, F. (1995). *Trust: The social virtues and the creation of prosperity*. New York: Free Press.

Grosso, A.L., & Van Ryzin, G. (2011). How citizens view government performance reporting: Results of a national survey. *Public Performance & Management Review*, *35*, 235-250.

Halpern, D. (2004). *Social Capital*. Oxford: Polity Press.

Hirschman, A.O. (1970). *Exit, voice and loyalty: Responses to decline in firms, organizations and states*. Cambridge Mass: Harvard University Press.

Jackman, R.W., & Miller, R.A. (1998). Social capital and politics. *Annual Review of Political Science*, *1*, 47-73.

Jacobsen, M. (2013). Can government initiatives increase citizen coproduction? Results of a randomized field experiment. *Journal of Public Administration Research and Theory*, *23*, 27-54.

Jencks, C., & M. Phillips, eds. (1998). *The black – white test score gap*. Washington, DC: The Brookings Institution.

Kahne J., & Bailey, K. (1999). The role of social capital in youth development: The case of "I have a dream" programs. *Educational Evaluation and Policy Analysis*, *21*, 321-343.

Kahne, J., O'Brien, J., Brown, A. and Quinn, T. (2001). Leveraging social capital and school improvement: The case of a school network and a comprehensive community initiative in Chicago. *Educational Administration Quarterly*, *37*, 429-461.

Leana, C.R. & Pil, K.P. (2006) Social capital and organizational performance: Evidence from urban public schools. *Organization Science*, *17*, 353-366.

Lee, J. (2014). Public meetings for efficient administrative performance in the United States. *Public Performance & Management Review*, *37*, 388-411.

Lee, J.W., & Kim, S.E. (2012). Searching for a strategic fit. *Public Performance & Management Review*, *36*(1), 31-53.

Lee, V.E., & Croninger, R.C. (2001). The elements of social capital in the context of six high schools. *Journal of Socio-Economics*, *30*, 165-167.

Leroux, K. (2007). Nonprofits as civic intermediaries: The role of community-based organizations in promoting political participation. *Urban Affairs Review*, *42*, 410-422.

Lin, N. (2001) *Social capital: A theory of social structure and action*. Cambridge, UK: Cambridge University Press.

Manna, P. (2011). *Collision Course: Federal Educational Policy Meets State and Local Realities*. Washington, DC: CQ Press.

Marshall, M. (2006). Parent involvement and educational outcomes for Latino students. *Review of Public Policy Research*, *23*, 1053-1076.

Meier, K.J., & O'Toole, L.J. Jr. (2013). Subjective organizational performance and measurement error: Common source bias and spurious relationships. *Journal of Public Administration Research and Theory*, *23*(2), 429-456.

Meier, K.J., O'Toole, L.J. Jr., Boyne, G.A., & Walker, R.M. (2008). Strategic management and the performance of public organizations: Testing venerable ideas against recent theories. *Journal of Public Administration Research and Theory*, *17*(3), 357-377.

Meier, K.J., O'Toole, L.J. Jr., Boyne, G.A., Walker, R.M., & Andrews, R. (2010). Alignment and results: Testing the interaction effects of strategy, structure, and environment from Miles and Snow. *Administration & Society*, *42*, 160-192.

Meyer, M. (2004). Too much of a "good" thing? Insular neighborhood associations, nonreciprocal civility, and the promotion of civic health. *Nonprofit and Voluntary Sector Quarterly*, *33*, 572-597.

Miles, R., & Snow, C.C. (1978). *Organizational strategy, structure and process*. London: McGraw Hill.

Mizrahi, S., Vigoda-Gadot, E., & Cohen, N. (2010) Trust, participation and performance: The case of the Israeli National Insurance Institute. *Public Management Review*, *12*(1), 99-126.

Montgomery, J.D. (2000). Social capital as a policy resource. *Policy Sciences*, *33*, 227-243.

Moore, M. (1995). *Creating public value. Strategic management in government.* Cambridge, MA: Harvard University Press.

Nalbandian, J. (2005). Professionals and the conflicting forces of administrative modernization and civic engagement. *American Review of Public Administration*, *35*, 311-326.

Navarro V. (2002). A critique of social capital. *International Journal of Health Services*, *32*, 423-432.

Newton K. (2001). Trust, social capital, civil society and democracy. *International Political Science Review* 22, 201-214.

O'Toole, L.J. Jr., & Meier, K.J. (2011). *Public Management, organizations, governance, and performance*. Cambridge, UK: Cambridge University Press.

Pearce, N., & Smith, G.D. (2003). Is social capital the key to inequalities in health? *American Journal of Public Health*, *93*, 122-129.

Perlmutter, F.D., & Cnaan, R.A. (1995). Entrepreneurship in the public sector: The horns of a dilemma. *Public Administration Review*, *55*, 29-36.

Pierce, J., Lovrich, N.P., & Moon, D.C. (2002). Social capital and government performance: An analysis of 20 American cities. *Public Performance and Management Review*, *25*(4) 381-397.

Porfeli, E., Wang, C., Audette, R., McColl, A., & Algozzine, B. (2009). Influence of social and community capital on student achievement in a large urban school District. *Education and Urban Society*, *42*, 72-95.

Portes, A. (1998) Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, *24*, 1-24.

Purdue, D. (2001). Neighbourhood governance: Leadership, trust and social capital. *Urban Studies*, *38*, 2211-2224.

Putnam, R.D. (1993). *Making democracy work: Civic traditions in modern Italy*. Princeton, NJ: Princeton University Press.

Putnam, R.D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.

Putnam, R.D. (2002). Community-based social capital and educational performance, in D. Ravitch and J. Viteritti (eds.), *Making Good Citizens: Education and Civil Soci*ety. New Haven: Yale University Press.

Ream, R.K., & Palardy, G.J. (2008). Re-examining social class differences in the availability and educational utility of parental social capital. *American Educational Research Journal*, *45*, 238-273.

Rosenbloom, D., & Gong, T. (2013). Co-producing "clean" collaborative governance: Examples from the United States and China. *Public Performance & Management Review*, *36*, 544-561.

Rothstein, B., & Stolle, D. (2008). The state and social capital: An institutional theory of generalized trust. *Comparative Politics*, *40*, 441-459.

Ryu, S., & Lee, J-Y. (2013). Examining the role of management in turnover. *Public Performance & Management Review*, *37*(1), 134-153.

Shirley, D. (1997). *Community Organizing for Urban School Reform*. Austin: University of Texas Press.

Snow, C.C., & Hrebiniak, L.G. (1980). Strategy, distinctive competence, and organizational performance. *Administrative Science Quarterly*, *25*, 317-336.

Son, J., & Lin, N. (2008). Social capital and civic action: A network-based approach. *Social Science Research*, *37*, 330-349.

Spillane, J.P., & Thompson, C.L. (1997) Reconstructing conceptions of local capacity: The Local Education Agency's capacity for ambitious instructional reform. *Educational Evaluation & Policy Analysis, 19*, 185-203.

Stanton-Salazar, R. (1997). A social capital framework for understanding the socialization of racial minority children and youth. *Harvard Educational Review*, *67*, 1-40.

Sun, Y. (1999). The contextual effects of community social capital on academic performance. *Social Science Research*, *28*, 403-426.

Suttles, G (1972). *The social construction of communities*, Chicago: University of Chicago Press.

Texas Education Agency (TEA) (2010a). *College admissions testing of graduating seniors in Texas high schools: Class of 2009*. Austin, TX: Division of Accountability Research, TEA.

Texas Education Agency (2010b). *2010 accountability manual* (Document No. GE10 602 02). Austin, TX: TEA.

Vigoda, E. (2002). From responsiveness to collaboration: Governance, citizens, and the next generation of public administration. *Public Administration Review*, *62*, 527-540.

Wanous, J.P., & Hudy, M.J. (2001). Single-item reliability: a replication and extension. *Organizational Research Methods*, *4*, 361-375.

Warren, M.R. (2005). Communities and schools: A new view of urban education reform. *Harvard Educational Review*, *75*, 133-173.

Warren, M.R., Mapp K.L., and the Community Organizing and School Reform Project. (2011) *A match on dry grass: Community organizing as a catalyst for school reform*. Oxford: Oxford University Press.

Webber, D.J. (2010). School district democracy: School board voting and school performance. *Politics & Policy*, *38*, 81-95.

Wells, A.S., & Serna, I. (1996). The politics of culture: Understanding local political resistance to detracking in racially mixed schools. *Harvard Educational Review*, *66*, 93-118.

Wilson, J. Q. (1989). *Bureaucracy*. New York: Basic Books.

Yang, K., & Pandey, S.K. (2011) Further dissecting the black box of citizen participation: When does citizen involvement lead to good outcomes? *Public Administration Review*, 71(6): 880-892.

Table 1. Descriptive Statistics

	Mean	Minimum	Maximum	s.d.
TAKS	73.60	20.00	97.00	10.67
College readiness (% gaining 1,100+points)	20.47	.00	66.70	11.94
College admission test (% taking SAT or ACT)	64.05	5.50	100.00	15.83
Participation in community organizations	2.74	1.00	4.00	.79
Parental involvement	2.68	1.00	4.00	.78
Social trust	2.93	1.00	4.00	.64
Search for new service opportunities	3.11	1.00	4.00	.62
Focus on what we already know how to do	3.17	1.00	4.00	.70
What we do is influenced by the TEA	3.47	1.00	6.00	.64
Interaction with local business leaders	3.71	1.00	6.00	1.09
Interaction with other school superintendents	4.05	2.00	6.00	.90
Interaction with state legislators	2.51	1.00	6.00	.78
Interaction with the TEA	3.06	1.00	6.00	.78
Interaction with the school board	4.53	3.00	6.00	.84
Superintendent years of tenure in district	9.56	.00	42.00	9.30
Personnel stability	83.89	50.00	100.00	7.52
% Black students	9.32	.00	78.00	12.46
% Hispanic students	35.31	1.00	100.00	27.03
% Low income students	53.48	3.90	100.00	19.16
Average teacher years of experience	12.27	1.30	20.00	2.57
Average teacher salary	43236.68	31498	55115	3789.90
Teachers with less than 5 years of service	32.93	5.20	97.80	12.76
Average class size	12.64	5.60	27.70	2.30
Per-student instructional spending	5211.25	2983	11866	1021.47

Table 2. Social Capital, Managerial Strategy and Performance

	TAKS				College admissions test				College readiness			
Social capital (SC)		1.678*	1.831*	5.506		2.329+	2.364+	18.700+		2.188*	1.924*	-4.716
Managerial strategy												
Prospecting			-.898+	1.442			-.560	-1.429			1.29+	-6.011+
Defending			.531	2.076			.734	6.157			-.592	-6.424*
Reacting			-.246	-.933			.152	8.461+			.308	6.930*
Interactions												
SC x Prospecting				-.860				.213				2.629*
SC x Defending				-.544				-1.961				2.043+
SC x Reacting				.213				-2.998+				-2.270*
Controls												
Managerial networking	-.351	-.399	-.323	-.308	-.679	-.759	-.719	-.701	-.405	-.481	-.600	-.701
School board contact	.579	.514	.557	.558	-.106	-.190	-.152	-.228	1.090*	1.002*	.955+	946+
Management experience	.054+	.049+	.046+	.046+	-.040	-.048	-.051	-.058	.026	.019	.022	.019
Personnel stability	.317**	.290**	.294**	.292**	-.069	-.107	-.108	-.108	.083	.046	.040	044
% Black students	-.093**	-.100**	-.102**	-.103**	.245**	.236**	.234**	.234**	.013	.005	.007	.007
% Hispanic students	-.038+	-.045*	-.047**	-.048*	.147**	.139**	.138**	.137**	-.009	-.017	-.014	-.011
% Low income students	-.248**	-.222**	-.216**	-.214**	-.285**	-.251**	-.248**	-.237**	-.361**	-.329**	-.338**	-.338**
Teacher experience	-.395	-.336	-.363	-.363	.564	.651	.635	.731	2.523*	2.748**	2.712**	2.553**
Teacher experience squared									-.109**	-.114**	-.111**	-.104**
Teacher salaries	.001**	.001**	.001**	.001**	.0003	.0003	.0003	.0003	.0002	.0002	.0002	.0002
New teachers	-.116	-.109	-.108	-.108	-.118	-.106	-.108	-.088	-.031	-.015	-.019	-.019
Class size	-1.559**	-1.572**	-1.573**	-1.571**	-1.896**	-1.917**	-1.918**	-1.998**	.064	.051	.047	.018
Instructional funds	-.002**	-.002**	-.002**	-.002**	.001	.001	.001	.0002	.0002	.0002	.0002	.0001
Constant	103.570**	97.507**	97.265**	87.115**	79.283**	69.825**	67.800**	22.652	12.287	2.410	1.9771	21.472
R^2	.618	.623	.623	.628	.153	.158	.159	.167	.434	.441	.446	.46

Note: N=498. +p<0.10, *p<0.05, **p<0.01. Slope coefficients shown.

Table 3. Dimensions of Social Capital, Strategy and Performance

	TAKS		College admissions test		College readiness	
Participation in community organizations (PC)	-.503	1.003	-.692	8.200	1.981**	1.478
Parental involvement (PI)	1.683**	6.307+	1.088	-2.975	.740	-7.082
Social trust (ST)	.875+	-2.823	2.395*	13.393+	-1.253+	1.767
Managerial strategy						
Prospecting	-.816	2.311	-.513	-1.910	1.271+	-6.909*
Defending	.480	.857	.671	5.275	-.537	-4.955
Reacting	-.199	-1.733	.206	10.344*	.261	7.934*
Interactions						
PC x Prospecting		-.309		-1.074		-.257
PC x Defending		.546		-1.069		.755
PC x Reacting		-.627		-.574		-.320
PI x Prospecting		.239		1.654		2.110*
PI x Defending		-1.671**		-1.627		.624
PI x Reacting		-.026		1.204		-.191
ST x Prospecting		-1.025		-.042		1.127
ST x Defending		.933+		.941		.177
ST x Reacting		1.103+		-4.036**		-2.041*
R^2	.633	.642	.165	.183	.457	.475

Note: N=498. +p<0.10, *p<0.05, **p<0.01. Slope coefficients shown.

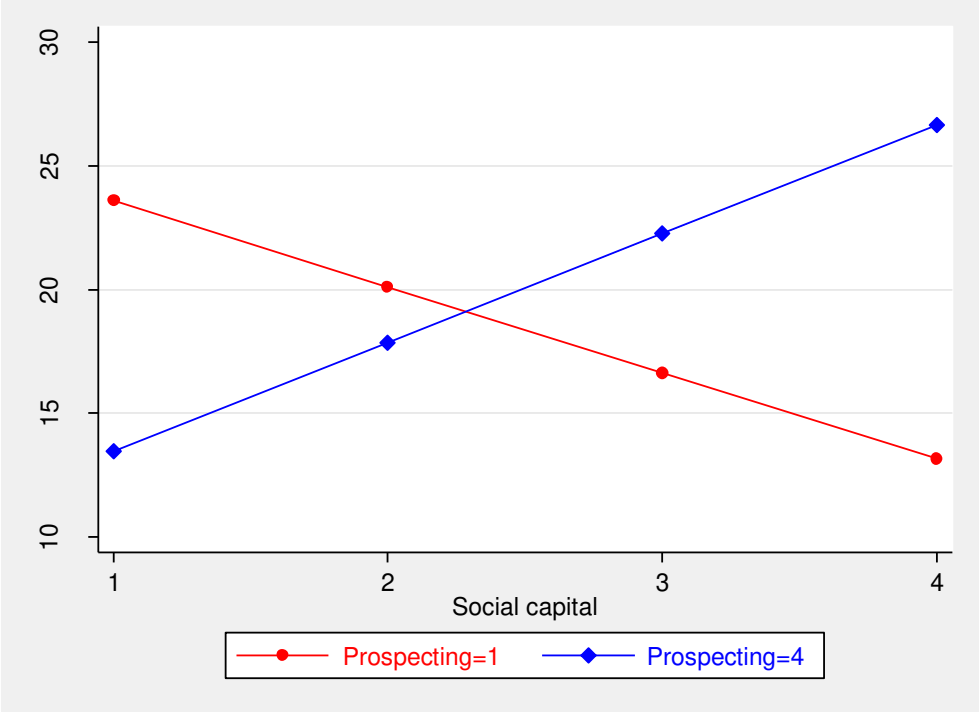

Figure 1 **Social capital and college readiness at high and low levels of prospecting**

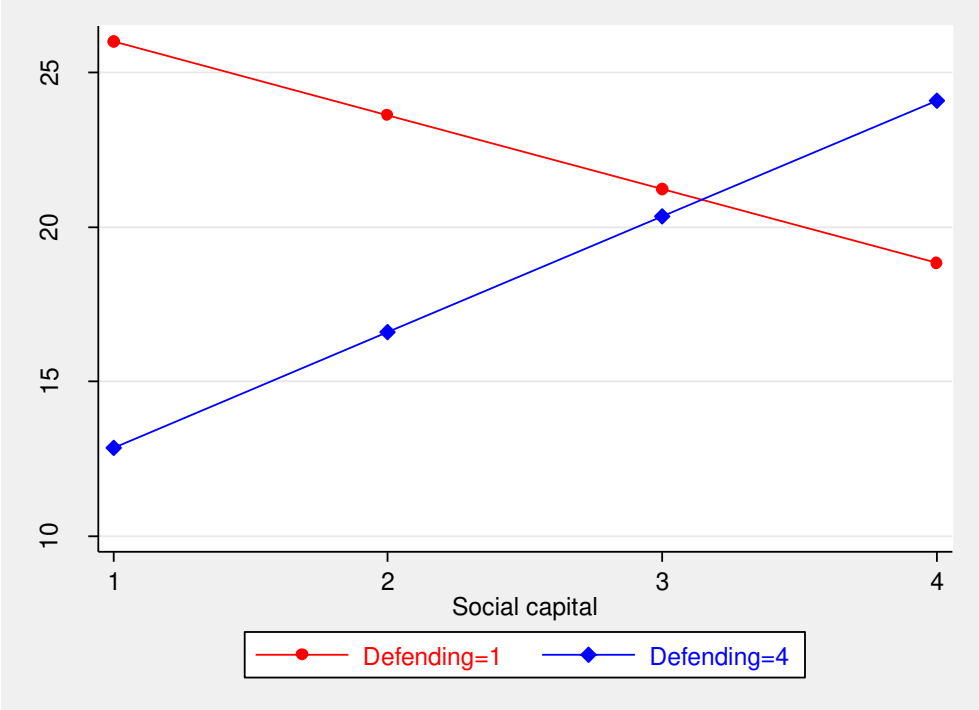

Figure 2 **Social capital and college readiness at high and low levels of defending**

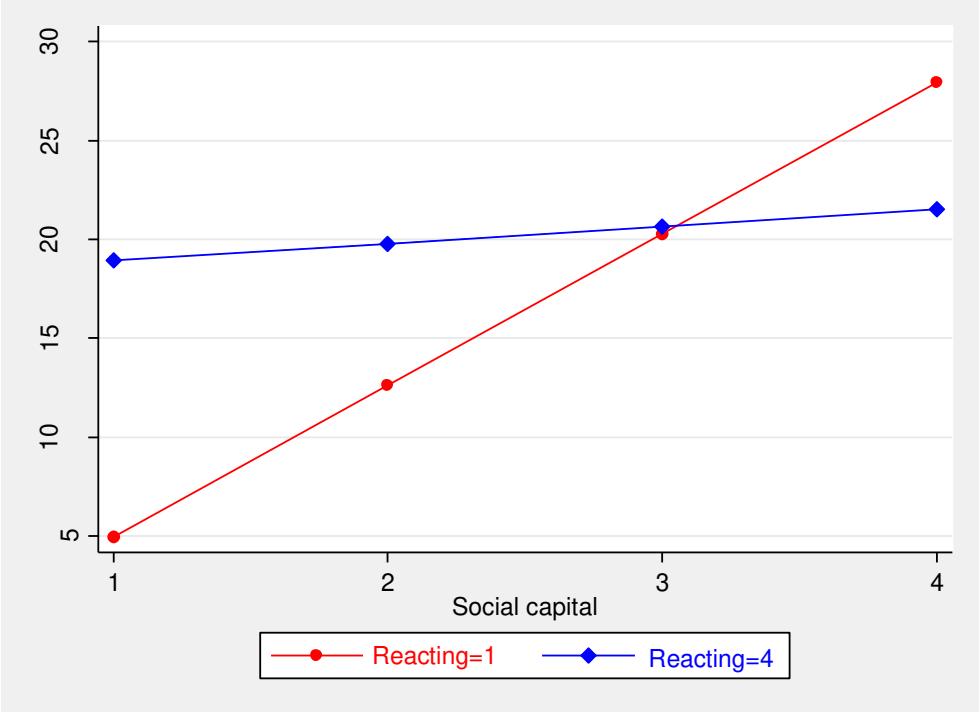

Figure 3 **Social capital and college readiness at high and low levels of reacting**

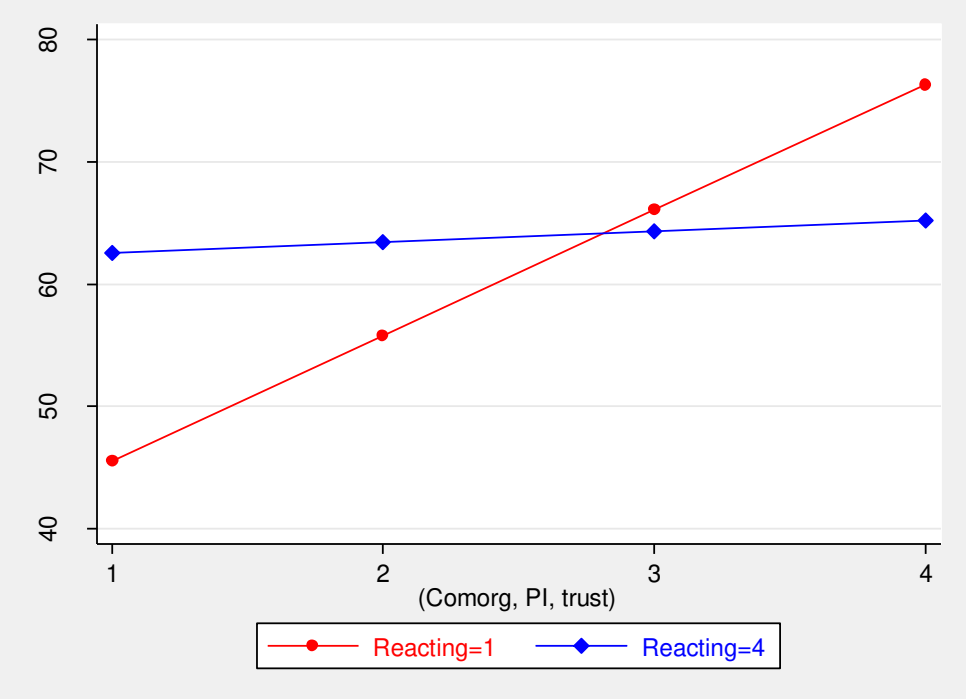

Figure 4 **Social capital and college admission testing at high and low levels of reacting**